

DERWENT-ACC-NO: 1998-050818

DERWENT-WEEK: 199805

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TITLE: Preparation of radiation shielding - uses
mechanically activated gypsum-containing wastes as basis,
and also filler and reinforcement

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PRIORITY-DATA: 1995RU-0119981 (November 27, 1995)

PATENT-FAMILY:

| PUB-NO | PUB-DATE | LANGUAGE |
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| PAGES MAIN-IPC | | |
| RU 2083007 C1 | June 27, 1997 | N/A |
| 004 G21F 003/04 | | |

APPLICATION-DATA:

| PUB-NO | APPL-DESCRIPTOR | APPL-NO |
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| APPL-DATE | | |
| RU 2083007C1 | N/A | 1995RU-0119981 |
| November 27, 1995 | | |

INT-CL (IPC): G21F003/04

ABSTRACTED-PUB-NO: RU 2083007C

BASIC-ABSTRACT:

Preparation of radiation shielding comprises: (a) placing phosphor-gypsum lumps, wastes from reprocessing of apatites and phosphorites in mineral fertiliser production in a mechanical grinder; (b) grinding to a size of 10 mm; and (c) mechanically activating by grinding to less than 0.001 mm. The phosphor-gypsum loses its water which wets the raw product. The product is placed in a casing and is allowed to set for 60 minutes. The resulting sheet

has a thickness of 150 mm and reduces beta -radiation by half and gamma -radiation by 1.6 times. The wastes contain not less than 40% by mass of gypsum and also a filler in the form of building wastes, slag and/or mineral dyes. The wastes further contain reinforcement in the form of assembly plates and/or road covering with a surface processing comprising mineral materials.

The method is useful in the manufacture of radiation protective constructions, mainly sheets and faceplates, used in e.g. communal and industrial constructions

The method allows ecological use of gypsum-containing wastes

CHOSEN-DRAWING: Dwg.0/0

TITLE-TERMS: PREPARATION RADIATE SHIELD MECHANICAL ACTIVATE GYPSUM
CONTAIN

WASTE BASIS FILL REINFORCED

DERWENT-CLASS: C04 K07

CPI-CODES: C05-A01B; C05-C05; C14-M01D; K07-A02;

CHEMICAL-CODES:

Chemical Indexing M2 *01*

Fragmentation Code

A220 A940 C101 C108 C316 C540 C730 C801 C802 C804

C805 M411 M781 M903 M904 Q444

Specific Compounds

03122U

SECONDARY-ACC-NO:

CPI Secondary Accession Numbers: C1998-017284